In the Claims

Claims 1-20 (Canceled)

Claim 21 (New): A method for preparing a gamma delta ($\gamma\delta$) T lymphocyte composition comprising culturing a biological preparation comprising at least 50 million mononuclear cells in the presence of a synthetic activator compound of gamma delta T lymphocytes and a cytokine.

Claim 22 (New): The method according to claim 21, wherein the biological preparation is a blood, plasma or serum sample.

Claim 23 (New): The method according to claim 22, wherein the biological preparation is from a cytapheresis.

Claim 24 (New): The method according to claim 21, wherein the biological preparation comprises more than 10×10^7 cells.

Claim 25 (New): The method according to claim 21, wherein the biological preparation has previously been frozen.

Claim 26 (New): The method according to claim 21, further comprising maintaining the cells at a density less than about 5×10^6 cells/ml during said culturing step.

Claim 27 (New): The method according to claim 21, wherein the cells are cultured for a time period greater than or equal to about 10 days.

Claim 28 (New): The method according to claim 27, wherein said cells are cultured between 10 and 25 days.

Claim 29 (New): The method according to claim 21, wherein the synthetic activator compound of gamma delta T lymphocytes is a ligand of the T cell receptor of said gamma delta T lymphocytes.

Claim 30 (New): The method according to claim 29, wherein the synthetic activator compound of said gamma delta T lymphocytes is selected from the group consisting of phosphohalohydrin compounds, phosphoepoxide compounds and bisphosphonate compounds.

Claim 31 (New): The method according to claim 30, wherein the synthetic activator compound of said gamma delta T lymphocytes is selected in the group consisting of the following compounds:

3-(bromomethyl)-3-butanol-1-yl-diphosphate (BrHPP);
3-(iodomethyl)-3-butanol-1-yl-diphosphate (IHPP);
3-(chloromethyl)-3-butanol-1-yl-diphosphate (ClHPP);
3-(bromomethyl)-3-butanol-1-yl-triphosphate (BrHPPP);
3-(iodomethyl)-3-butanol-1-yl-triphosphate (IHPPP);
α,γ-di-[3-(bromomethyl)-3-butanol-1-yl]-triphosphate (diBrHTP);
α,γ-di-[3-(iodomethyl)-3-butanol-1-yl]-triphosphate (diIHTP);
3,4,-epoxy-3-methyl-1-butyl-diphosphate (Epox-PP);
3,4,-epoxy-3-methyl-1-butyl-triphosphate (Epox-PPP); and
α,γ-di-3,4,-epoxy-3-methyl-1-butyl-triphosphate (di-Epox-TP).

Claim 32 (New): The method according to claim 21, wherein the cytokine is selected in the group consisting of interleukin-2 and interleukin-15.

Claim 33 (New): The method according to claim 21, wherein the cytokine is used at a concentration between about 150 U/ml and about 500 U/ml.

Claim 34 (New): The method according to claim 21, wherein said method produces a composition of gamma delta T lymphocytes having the following characteristics:

said composition comprises more than 80 % gamma delta T cells, and

said composition comprises more than 100 million viable and functional gamma delta T cells.

Claim 35 (New): A method for enriching the population of functional gamma delta T lymphocytes in a biological sample comprising culturing cells from a cytapheresis in the presence of a synthetic activator compound of gamma delta T lymphocytes.

Claim 36 (New): The method according to claim 35, further comprising the addition of a cytokine selected from the group consisting of interleukin-2 and interleukin-15.

Claim 37 (New): The method according to claim 35, wherein said cells are cultured under conditions that ensure that cell density is maintained at essentially below 5×10^6 cells/ml.

Claim 38 (New): The method according to claim 36, wherein said cytokine is added one to 72 hours after the culturing of said cells is initiated.

Claim 39 (New): The method according to claim 36, wherein said cytokine is added to said culture of cells at the time culturing of said cells is initiated.

Claim 40 (New): The method according to claim 35, further comprising the step of recovering some or all of said gamma delta T lymphocytes.

Claim 41 (New): The method according to claim 40, further comprising formulating said recovered gamma delta T lymphocytes into a pharmaceutically acceptable composition.

Claim 42 (New): The method according to claim 38, further comprising the step of recovering some or all of said gamma delta T lymphocytes.

Claim 43 (New): The method according to claim 42, further comprising formulating said recovered gamma delta T lymphocytes into a pharmaceutically acceptable composition.

Claim 44 (New): The method according to claim 39, further comprising the step of recovering some or all of said gamma delta T lymphocytes.

Claim 45 (New): The method according to claim 44, further comprising formulating said recovered gamma delta T lymphocytes into a pharmaceutically acceptable composition.

Claim 46 (New): A composition comprising a population of cells comprising more than 80% functional gamma delta T lymphocytes and comprising more than 100 million gamma delta T lymphocytes and a carrier or excipient.

Claim 47 (New): The composition according to claim 46, further comprising human serum albumin.

Claim 48 (New): The composition according to claim 46, further comprising a cytokine selected from the group consisting of IL-2 and IL-15.

Claim 49 (New): A method of stimulating the immune defenses of a subject comprising the administration of a composition comprising a population of cells composed of more than 80% functional gamma delta T lymphocytes, more than 100 million gamma delta T lymphocytes and a carrier or excipient to said subject.

Claim 50 (New): The method according to claim 49, wherein said method treats an infectious disease, a parasitic disease, or cancers.